

Document No. FCF-PO-PROC-0002

Revision Initial Release

Fluids and Combustion Facility Document

Modification Procedure for Aluminum EDA Ground Racks

Date: December 5, 2001

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| AS RUN PROCEDURE |
| Date: |
| Name: |

Approved by Dennis Rohn, FCF Chief Engineer, Systems Engineering Division, 7810

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Cleveland, OH 44135**

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1.0 INTRODUCTION

1.1 Purpose

This document provides the procedure for modifying aluminum Engineering Design Article (EDA) ground racks, to allow attachment of upper knee-braces in a flight-like configuration.

1.2 Scope

This document applies to personnel involved with the rack modifications.

2.0 REFERENCES

2.1 Reference Documents

| Document Number | Document Title |
|-----------------|---------------------------------|
| 67157M77A001 | Upper Knee Brace Launch Fitting |
| SK683-14053 | EDA Rack Assembly |

2.2 Records and Forms

The following records and forms are generated from this process:

- As Run Procedure

2.3 Acronyms

| Acronym | Definition |
|---------|--------------------------------|
| EDA | Engineering Design Article |
| FCF | Fluids and Combustion Facility |
| SDL | Structural Dynamics Laboratory |

2.4 Definition of Terms

N/A

3.0 RESPONSIBILITIES

| Title | Responsibilities |
|--|--|
| Structural Dynamics Laboratory (SDL) Personnel | <ul style="list-style-type: none"> • Coordinate modification activities |
| Technician | <ul style="list-style-type: none"> • Perform disassembly/re-assemble per procedure |
| Manufacturing Engineering Division | <ul style="list-style-type: none"> • Perform modification to parts per referenced drawing |
| Quality Assurance Personnel | <ul style="list-style-type: none"> • Witness disassembly and re-installation |

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4.0 PROCEDURE

See Figure 1

The aluminum ground rack upper knee brace launch fittings will be removed from the rack, modified, and reinstalled. Note that there are two parts, right and left to be modified.

See Figure 2

1. Remove five 1/4-20 button head cap screws from the outer panel (item #1).
2. Remove four 1/4-20 button head cap screws from the inside panel (item #2).
3. Bag fasteners and attach to rack.

See Figure 3

4. Remove right and left upper knee brace launch fittings, part numbers 683-50232-1 & 683-50232-2, by pulling straight up out of the rack (item #3).
5. Technician signature & date to verify steps 1-4 completed.

Technician_____ Date_____

See Figure 4

6. Send to Glenn Research Center Manufacturing Engineering Division for modifications of the upper knee brace launch fittings per drawing number 67157M77A001.

See Figure 3

7. Insert upper knee brace launch fitting back into the rack (item #3).

See Figure 2

8. Secure five 1/4-20 button head cap screws back into the part (683-50232-1&-2) from the outside panel. Torque to 56 in lbs. per assembly drawing specifications, drawing number SK683-14053.
9. Secure four 1/4-20 button head cap screws back into the part (683-50232-1&-2) from the inside panel. Torque to 56 in lbs. per assembly drawing specifications, drawing number SK683-14053.
10. Signatures of technician and quality assurance personnel to verify steps 7, 8, and 9 completed.

Technician_____ Date_____

Quality Assurance_____ Date_____

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5.0 FIGURES

Figure 1 - Aluminum Ground Rack Front View

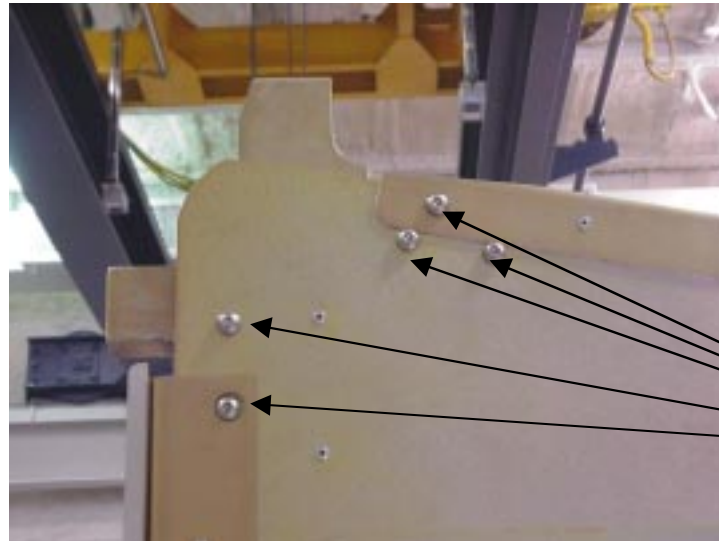
Upper left
knee brace
launch fitting



Upper right
knee brace
launch fitting

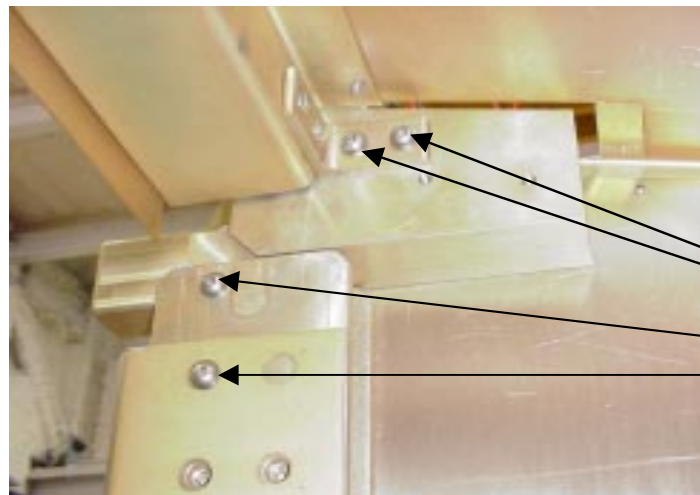
Figure 2 - Upper Fitting Detail Views

Outer View



1

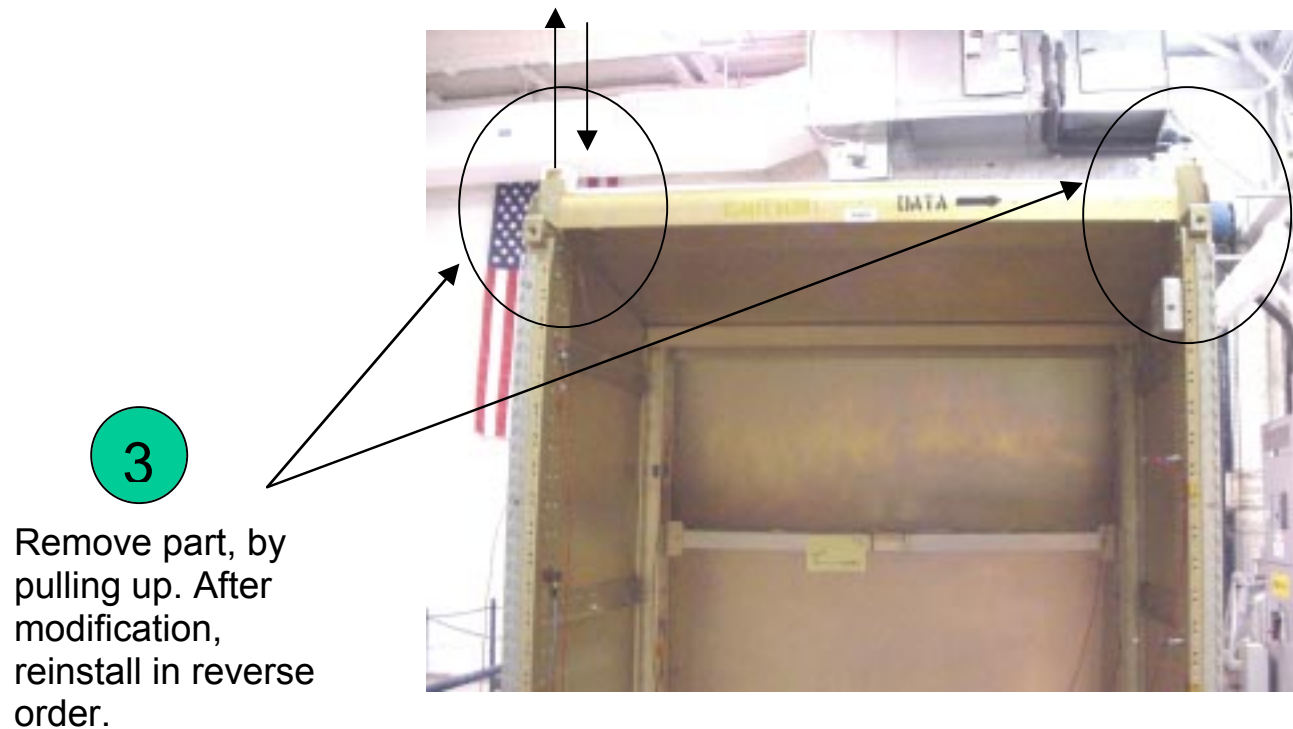
Inner View



2

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Figure 3 - Upper Fitting Removal Installation Front View



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Figure 4 - Upper Fitting Modification

